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Medium voltage joints

Catalogue 2012

# Nexans Network Solutions Div. Euromold

## COMPANY PRESENTATION



### **EUROMOLD**

Euromold is the leading European specialised designer, manufacturer and distributor of prefabricated cable accessories for medium voltage energy distribution. Euromold provides a complete range of accessories for underground cables: premoulded EPDM rubber connectors for cables and epoxy bushings for transformers and switchgear, as well as a large range of cold-shrinkable terminations and joints from 12 to 36 kV. Euromold is also the manufacturer of electrical components for the high voltage accessories of the Nexans group.

### **ISO 9001 Certificate**

Since 1992, Euromold's commitment to quality is demonstrated by its ISO 9001 certification.

### **International standards**

All our products meet the International standards like CENELEC HD 629.1, CENELEC EN 50180, IEC 60137, IEC 60502-4... or country specifications. Official certificates, CESI, KEMA, ATEX... prove the conformity of our products. Long duration tests of existing or new products are continuously performed in our test fields.

### **Laboratory accreditation**

Since June 2000, Euromold's independent ELAB laboratory obtained the BELAC accreditation no.144-TEST conform with the European standards for laboratories ISO 17025 for electrical testing of low and medium voltage cable accessories according to the international standards HD 623 and HD 629.

While every care is taken to ensure that the information contained in this publication is correct, no legal responsibility can be accepted for any inaccuracy. Nexans Network Solutions N.V. - Div. Euromold reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.



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# 17CSJ-S

## SINGLE CORE STRAIGHT JOINT WITH CONNECTOR

Up to 17.5 kV

### Application

For jointing copper wire screened polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

**This product can be installed where installation space is limited (minimum 1 meter).**

### Technical characteristics

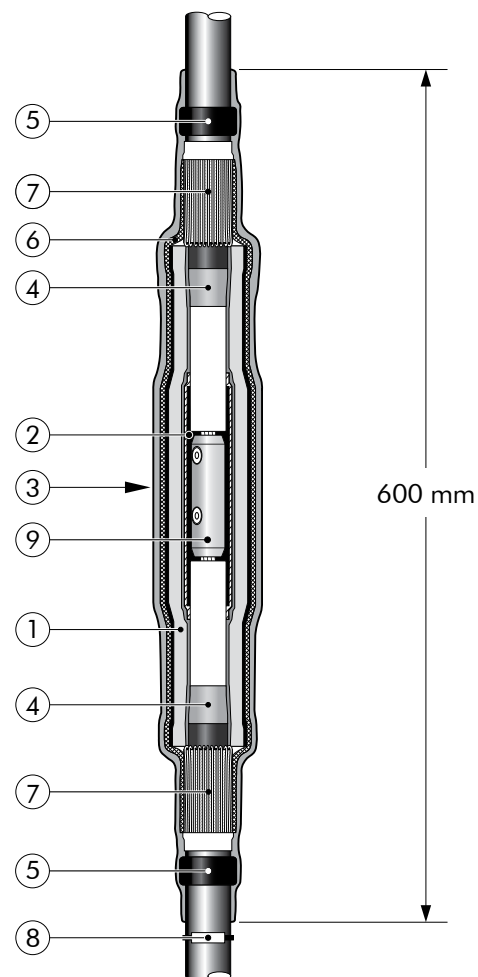
All joint bodies are tested for AC withstand prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV

### Design

Cold-shrinkable joint comprising:

1. Extruded triple layer EPDM rubber body.
2. Two layer plate with a semi-conductive and a field control mastic layer.
3. Overall protective EPDM cover.
4. Field control mastic.
5. Water sealing mastic.
6. Copper stocking.
7. Self-adhesive copper tape.
8. Traceability tag.
9. Mechanical conductor connector.
10. Insulating mastic.



### Specifications and standards

The cold-shrinkable 17CSJ-S joint meets the requirements of CENELEC HD 629.1.

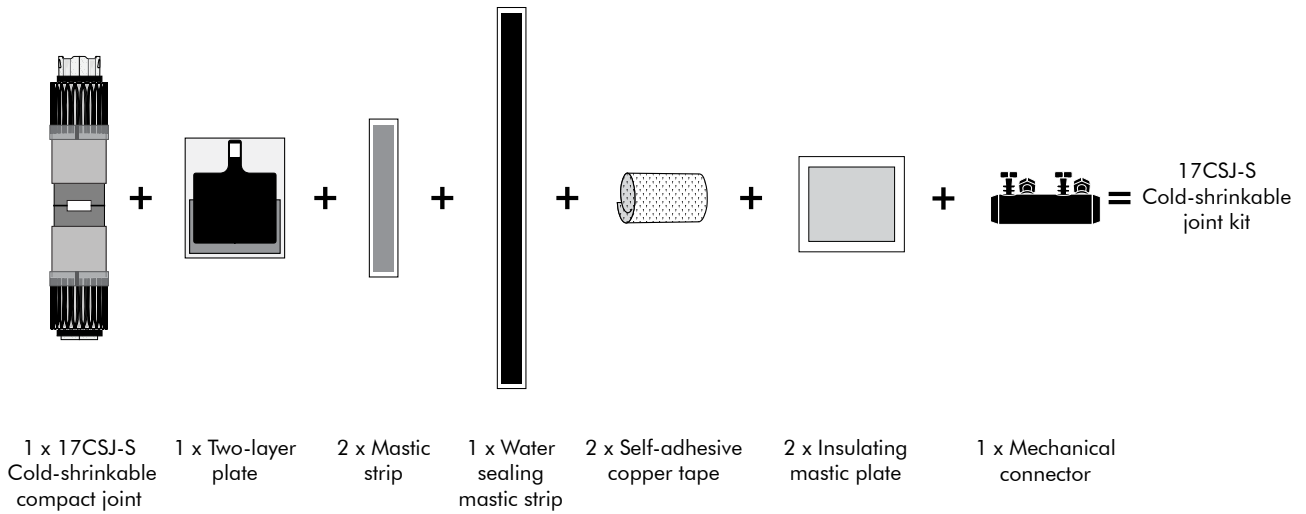
Cold-shrinkable straight joint type	Voltage $U_m$ (kV)	Diameter over outer sheath (mm)	Diameter over core insulation (mm)	Conductor sizes (mm <sup>2</sup> )	
		max	min	min	max
17CSJ-S/M50.240	17.5	48	18	50	240
17CSJ-S/M95.240	17.5	48	18	95	240
17CSJ-S/M120.300	17.5	48	18	120	300

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## Kit contents

A typical complete cold-shrinkable joint kit 17CSJ-S comprises the following components:

The kit also comprises an installation hook, adhesive tape, lubricant, wipers, gloves, template, white pencil and installation instructions.



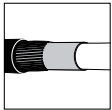
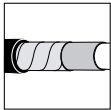

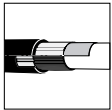

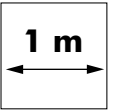
## Ordering instructions

Select the part number corresponding to the cable core insulation diameter.

Ordering part number	Conductor sizes (mm <sup>2</sup> )									Diameter over core insulation (mm)	Diameter over outer sheath (mm)	Conductor connector included	
	35	50	70	95	120	150	185	240	300				
17CSJ-S/M50.240		<b>17CSJ-S/M50.240</b>								18 min	48 max	Yes	
17CSJ-S/M95.240			<b>17CSJ-S/M95.240</b>						18 min	48 max	Yes		
17CSJ-S/M120.300				<b>17CSJ-S/M120.300</b>							18 min	48 max	Yes

### Example:

The copper wire screened cable is 12 kV, 300 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 28.1 mm. Order a 17CSJ-S/M120.300-45 cold-shrinkable joint kit.

					
<p>For use with copper wire screened cables. No earthing device is necessary. Order: -45</p>	<p>For use with copper tape screened cables. Order: -26</p>	<p>For use with fabric tape (graphite) screened cables. Order additional semi-conductive tape (type TSC).</p>	<p>For use with Alupe or C 33-226 cables. Order: -07</p>	<p>For use with other cable types. Please contact our representative.</p>	<p>This product can be installed where the installation space is limited.</p>

# 24CSJ-S

## SINGLE CORE STRAIGHT JOINT WITH CONNECTOR

Up to 24 kV

### Application

For jointing copper wire screened polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

**This product can be installed where installation space is limited (minimum 1 meter).**

### Technical characteristics

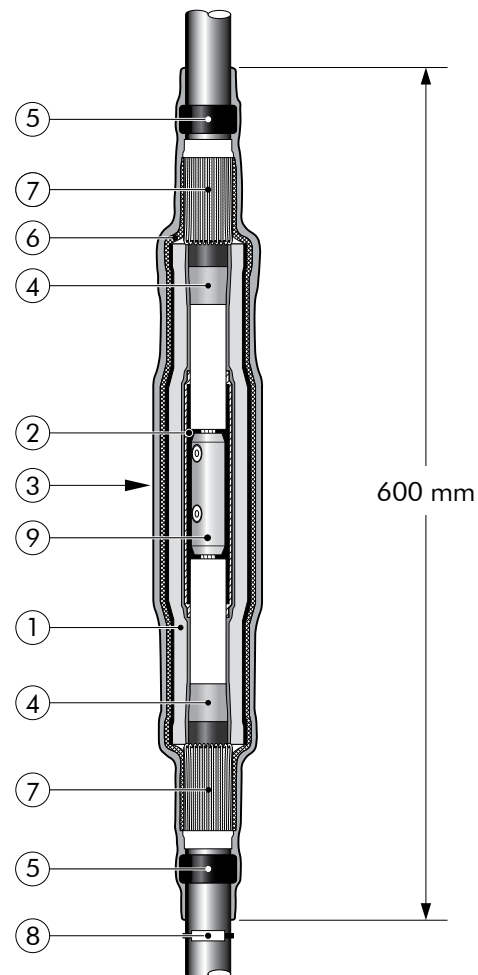
All joint bodies are tested for AC withstand prior to leaving the factory.

12/20 (24) kV  
12.7/22 (24) kV

### Design

Cold-shrinkable joint comprising:

1. Extruded triple layer EPDM rubber body.
2. Two layer plate with a semi-conductive and a field control mastic layer.
3. Overall protective EPDM cover.
4. Field control mastic.
5. Water sealing mastic.
6. Copper stocking.
7. Self-adhesive copper tape.
8. Traceability tag.
9. Mechanical conductor connector.



### Specifications and standards

The cold-shrinkable 24CSJ-S joint meets the requirements of CENELEC HD 629.1.

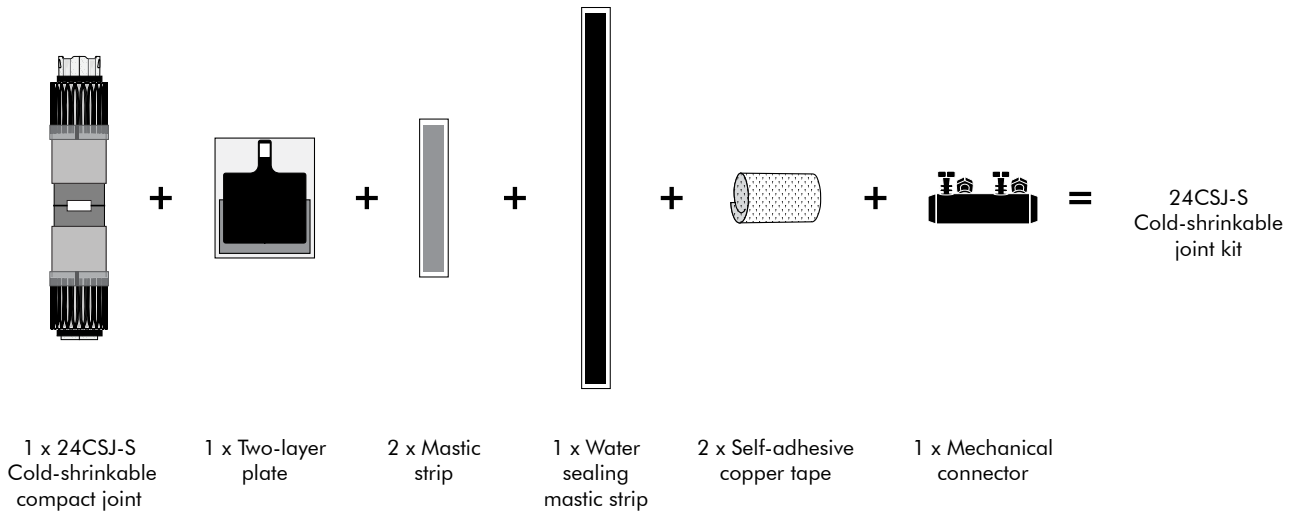
Cold-shrinkable straight joint type	Voltage $U_m$ (kV)	Diameter over outer sheath (mm)		Diameter over core insulation (mm)		Conductor sizes (mm <sup>2</sup> )	
		max	min	min	max	min	max
24CSJ-S/M50.240	24	48	18	50	240		
24CSJ-S/M95.240	24	48	23	95	240		

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## Kit contents

A typical complete cold-shrinkable joint kit 24 CSJ-S comprises the following components:

The kit also comprises an installation hook, adhesive tape, lubricant, wipers, gloves, template, white pencil and installation instructions.



## Ordering instructions

Select the part number corresponding to the cable core insulation diameter.

Ordering part number	Conductor sizes (mm <sup>2</sup> ) (24kV)									Diameter over core insulation (mm)	Diameter over outer sheath (mm)	Conductor connector included		
	35	50	70	95	120	150	185	240	300					
24CSJ-S/M50.240		24CSJ-S/M50.240									18 min	48 max	Yes	
24CSJ-S/M95.240			24CSJ-S/M95.240									23 min	48 max	Yes

### Example:

The copper wire screened cable is 24 kV, 120 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 25.3 mm. Order a 24CSJ-S/M95.240-45 cold-shrinkable joint kit.

For use with copper wire screened cables. No earthing device is necessary. Order: -45.	For use with copper tape screened cables. Order: -26.	For use with fabric tape (graphite) screened cables. Order additional semi-conductive tape (type TSC).	For use with Alupe or C 33-226 cables. Order: -07	For use with other cable types. Please contact our representative.	This product can be installed where the installation space is limited.



## 24CSJ SINGLE CORE STRAIGHT JOINT

Up to 24 kV

### Application

For jointing copper wire screened polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

### Technical characteristics

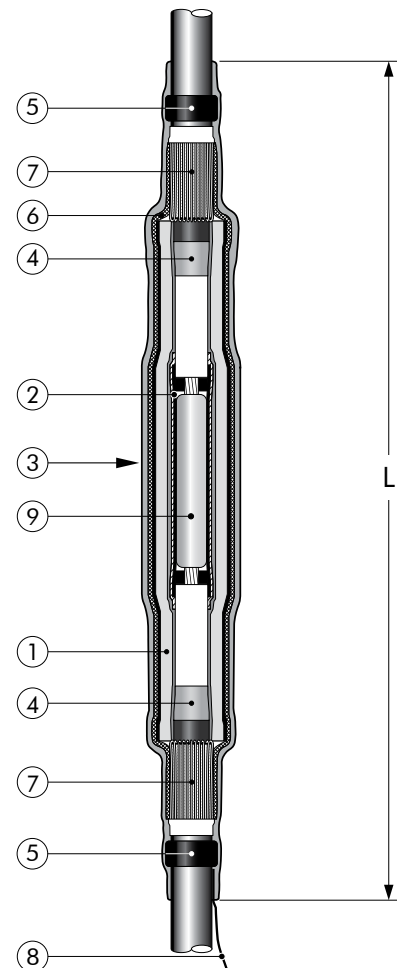
All joint bodies are tested for AC withstand prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Design

Cold-shrinkable joint comprising:

1. Extruded triple layer EPDM rubber body.
2. Two layer plate with a semi-conductive and a field control mastic layer.
3. Overall protective EPDM cover.
4. Field control mastic.
5. Water sealing mastic.
6. Copper stocking.
7. Self-adhesive copper tape.
8. Traceability tag.
9. Conductor connector (not included in the standard kit).



### Specifications and standards

The cold-shrinkable 24CSJ joint meets the requirements of CENELEC HD 629.1.

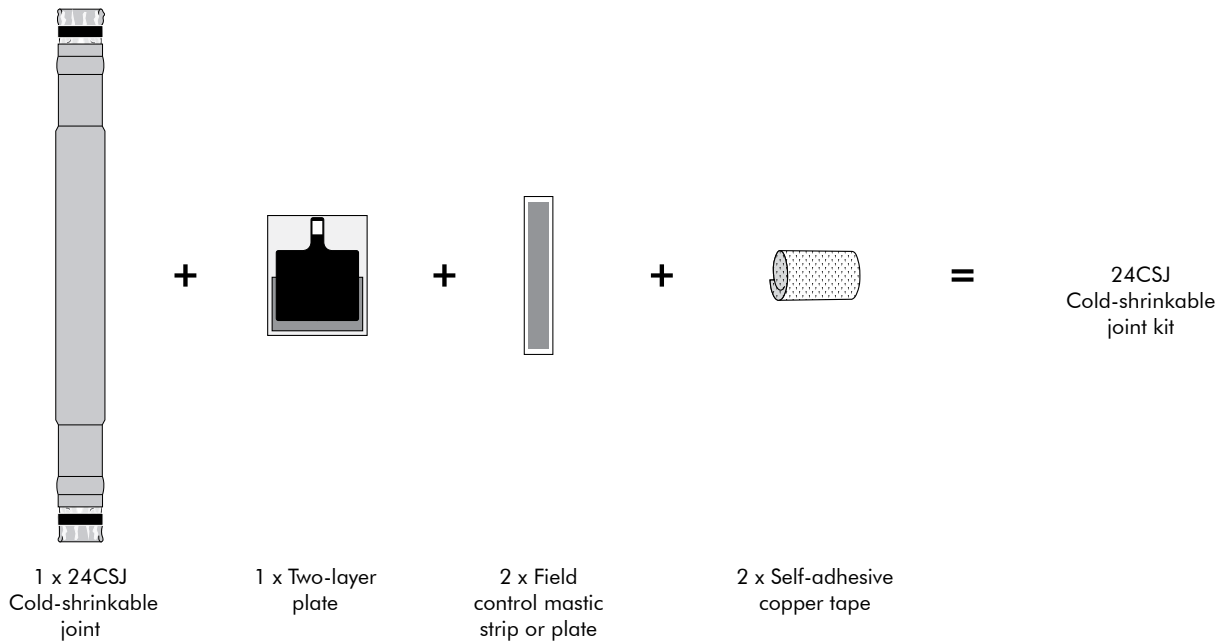
Cold-shrinkable straight joint type	L (mm)	Diameter over outer sheath (mm)	Diameter over core insulation (mm)		Conductor sizes for 12kV (mm <sup>2</sup> ) (for information only)		Conductor sizes for 24 kV (mm <sup>2</sup> ) (for information only)	
		max	min	max	min	max	min	max
24CSJ-1	750	46	18	33	95	300	35	185
24CSJ-2	750	46	23	38	185	300	95	300
24CSJ-3	850	57	30	54	400	630	240	630

01/2012

## Kit contents

A typical complete cold-shrinkable joint kit comprises the following components:

The kit also comprises a pulling hook, adhesive tape, lubricant, wipers, gloves and installation instructions.



## Ordering instructions

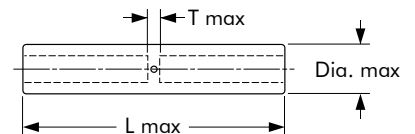
Select the part number corresponding to the cable core insulation diameter.

Ordering part number	Conductor sizes for 24 kV (mm <sup>2</sup> ) (for information only)												Diameter over core insulation (mm)	Diameter over outer sheath (mm)	
	35	50	70	95	120	150	185	240	300	400	500	630			
24CSJ-1	24CSJ-1													18 - 33	46 max
24CSJ-2				24CSJ-2										23 - 38	46 max
24CSJ-3							24CSJ-3							30 - 54	57 max

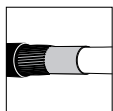
### Example:

The copper wire screened cable is 24 kV, 120 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 25.3 mm. Order a 24CSJ-2 cold-shrinkable joint kit-45.

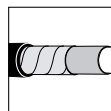
Joint type	L max (mm)	Dia max (mm)	T max (mm)
24CSJ-1	150	35	8
24CSJ-2	150	35	8
24CSJ-3	280	54	15



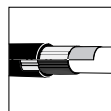
All types of conductor connectors can be used. The conductor connectors must be within the dimensions specified.



For use with copper wire screened cables. No earthing device is necessary. Order: -45.



For use with copper tape screened cables. Order: -26



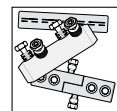
For use with Alupe or C 33-226 cables. Order: -07



For use with other cable types. Please contact our representative.



For use with three-core cables. See TT-24CSJ.



Can be supplied with all common types of conductor connectors.

# 36CSJ

## SINGLE CORE STRAIGHT JOINT WITH CONNECTOR

Up to 36 kV

### Application

For jointing copper wire screened polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

### Technical characteristics

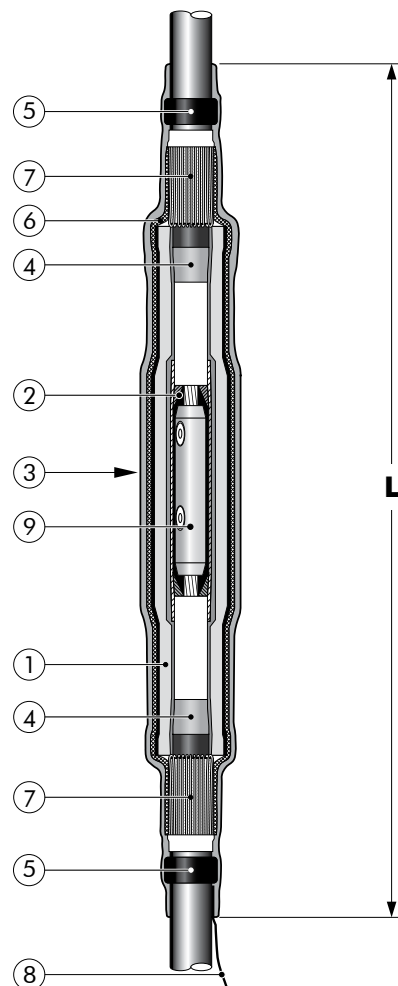
All joint bodies are tested for AC withstand prior to leaving the factory.

18/30 (36) kV  
19/33 (36) kV

### Design

Cold-shrinkable joint comprising:

1. Extruded triple layer EPDM rubber body.
2. Semi-conductive tape embedded in field control mastic.
3. Overall protective EPDM cover.
4. Field control mastic.
5. Water sealing mastic.
6. Copper stocking.
7. Self-adhesive copper tape.
8. Traceability tag.
9. Conductor connector.



### Specifications and standards

The cold-shrinkable 36CSJ joint meets the requirements of CENELEC HD 629.1.

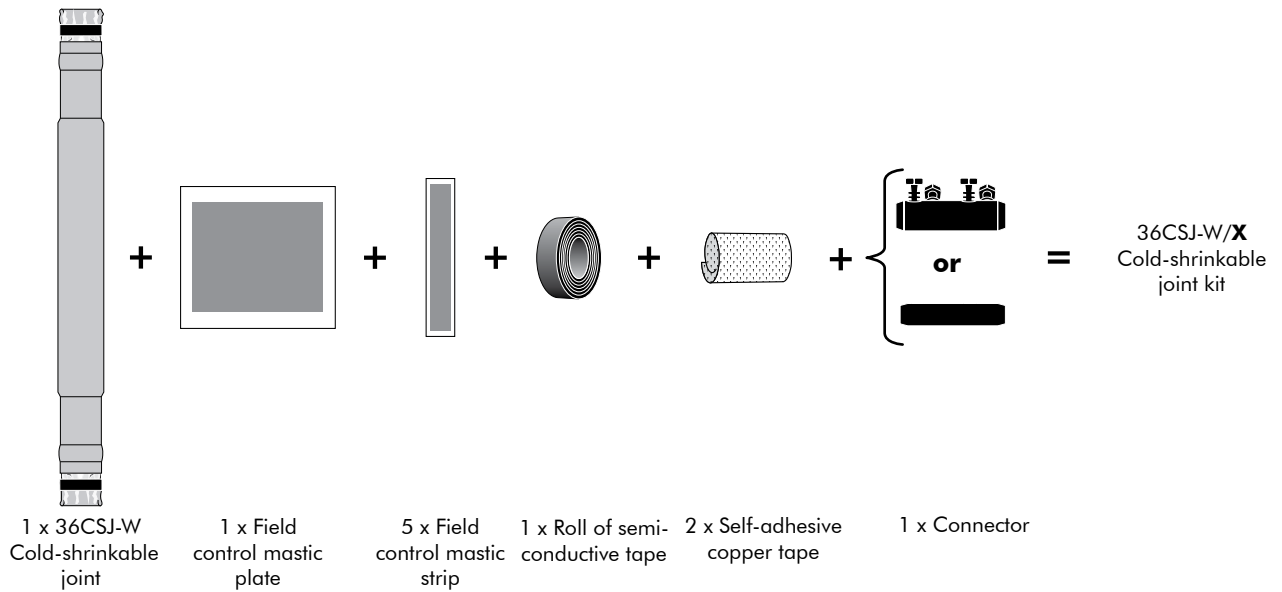
Cold-shrinkable straight joint type	L (mm)	Voltage U <sub>m</sub> (kV)	Diameter over outer sheath (mm)	Diameter over core insulation (mm)	Conductor sizes for 36 kV (mm <sup>2</sup> ) (for information only)	
			max	min	min	max
36CSJ-2	750	36	48	23	35	240
36CSJ-3	850	36	57	30	185	630

01/2012

## Kit contents

A typical complete cold-shrinkable joint kit comprises the following components :

The kit also comprises a pulling hook, adhesive tape, lubricant, wipers, gloves, template, white pencil and installation instructions.



## Ordering instructions

Select the part number corresponding to the cable insulation diameter and the diameter over outer sheath and substitute X using table X, according to the conductor size and type.

### Example:

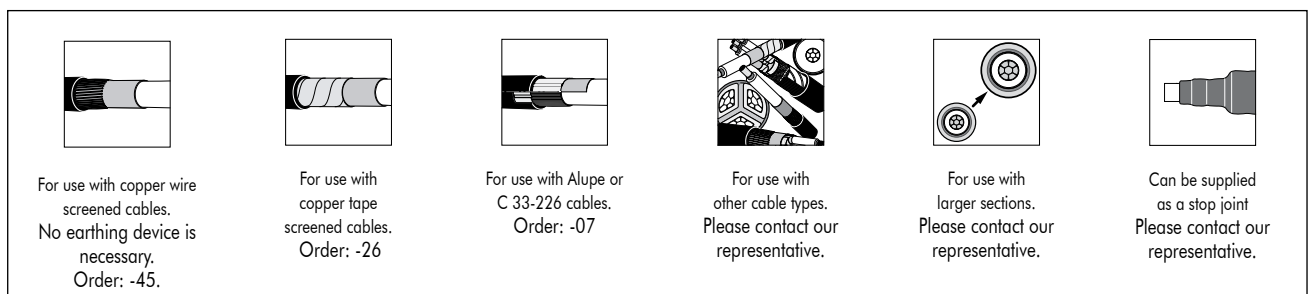
The copper wire screened cable is 36 kV, 150 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 32.1 mm. Order a 36CSJ-2/M95.240-45 cold-shrinkable joint kit.

**Table W**

Ordering part number	Dia. over core insulation	Dia. over outer sheath
36CSJ-2/X	23 mm min.	48 mm max.
36CSJ-3/X	30 mm min.	57 mm max.

**Table X**

Conductor sizes (mm <sup>2</sup> )	Aluminium conductor			Copper conductor	
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal	Bolted
35	35ALU-H	DI_35		35KU-H	
50	50ALU-H	DI_50		50KU-H	
70	70ALU-H	DI_70		70KU-H	
95	95ALU-H	DI_95		95KU-H	
120	120ALU-H	DI_120		120KU-H	
150	150ALU-H	DI_150		150KU-H	
185	185ALU-H	DI_185		185KU-H	
240	240ALU-H	DI_240		240KU-H	
300	300ALU-H	DI_300		300KU-H	
400	400ALU-H	DI_400		400KU-H	
500	500ALU-H	DI_500		500KU-H	
630	630ALU-H	DI_630		630KU-H	



# TT-24CSJ

## THREE CORE STRAIGHT JOINT WITH CONNECTOR

Up to 24 kV

### Application

For jointing three core metallic tape screened polymeric armoured cables to be directly buried. The product is fully screened and fully submersible.

### Technical characteristics

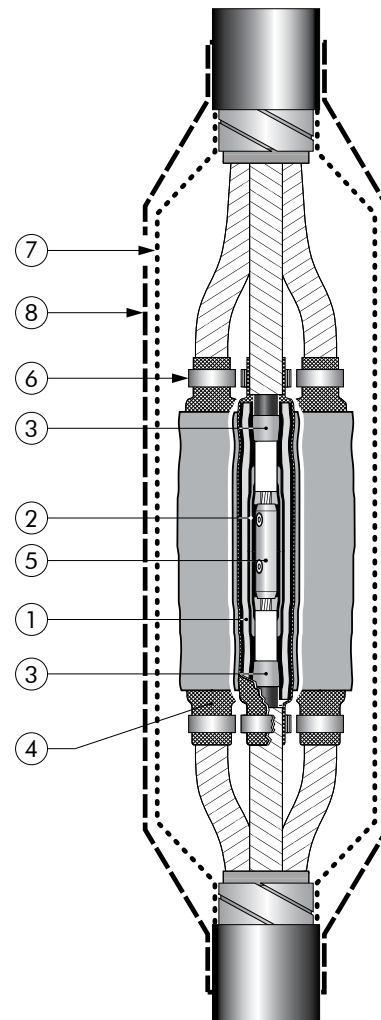
- All joint bodies are tested for AC withstand prior to leaving the factory.
- All different types of armouring and screen connection systems are possible. Standard version has short circuit current rating (Isc) : up to 5.1 kA/1s .

12/20 (24) kV  
12.7/22 (24) kV

### Design

The joint comprises:

1. Extruded triple layer EPDM rubber body.
2. Two layer plate with a semi-conductive and a field control mastic layer.
3. Field control mastic.
4. Copper stocking or mesh.
5. Conductor connector.
6. Roll springs.
7. Screen and armour continuity (adapted to the specific needs).
8. Overall protective cover, can be:
  - heat-shrinkable or
  - resin injected tape.



### Specifications and standards

This joint meets the requirements of CENELEC HD 629.1.

Cold-shrinkable straight joint type	Voltage $U_m$ (kV)	Diameter over core insulation (mm)		Conductor sizes for 24 kV (mm <sup>2</sup> ) (for information only)	
		min	max	min	max
TT-24CSJ/M95.240	24	23	38	95	240

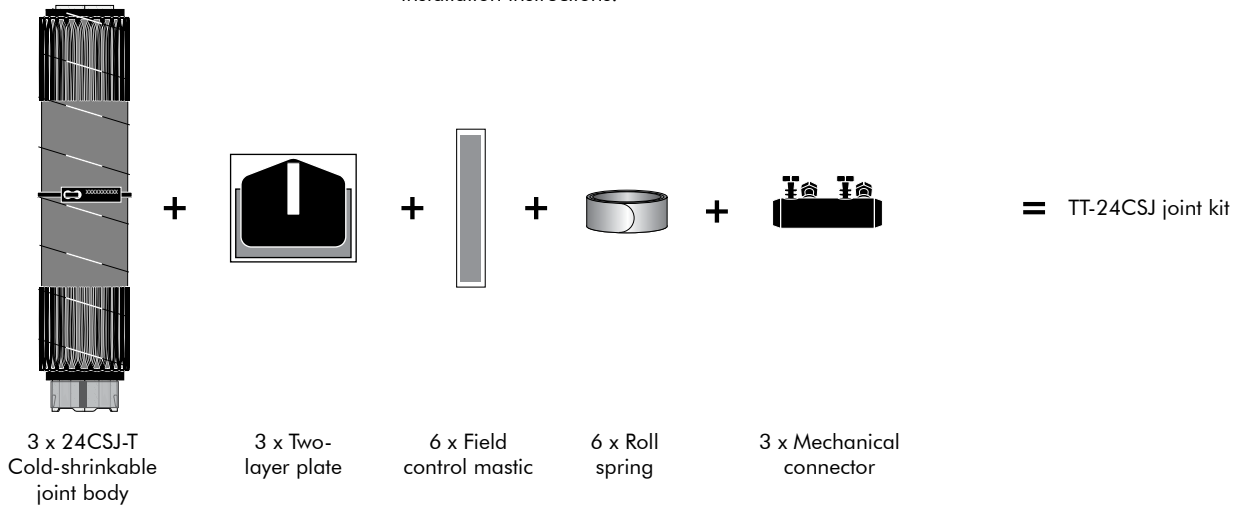
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## Kit contents

A typical complete cold-shrinkable joint kit comprises the following components:

The kit also comprises a pulling hook, adhesive tape, roll springs, water sealing mastic, lubricant, wipers, gloves and installation instructions.

Depending on the type of the cable armour and the outer protection required, other components will be included in the kit.



## Ordering instructions

Make sure cable outer sheath and core insulation diameters correspond to the range shown in the table below.

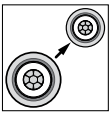
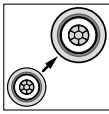
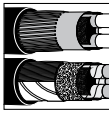

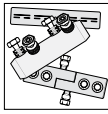
Select the part number and add the code corresponding to the type of cover required. Please indicate the required earth connection and provide

the cable data sheet for screening and/or armour connection solution (see Enquiry sheet p. 20).

Ordering part number	Conductor sizes (mm <sup>2</sup> ) (for information only)									Diameter over core insulation (mm)	Diameter over outer sheath (mm)	Connector included
	35	50	70	95	120	150	185	240	300			
TT-24CSJ/M95-240				TT-24CSJ/M95.240/X						23 - 38	80 max	Yes

**Table X**

Cover type	Description
/HSS	The joint will be supplied with a heat-shrinkable cover
/TIR	The joint will be supplied with a taped injected resin cover

 <p>For use with smaller sections. Please contact our representative.</p>	 <p>For use with larger sections. Please contact our representative.</p>	 <p>Different armour connections are available. Please contact our representative.</p>	 <p>Different types of screen continuity kits can be supplied. Please contact our representative.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p><b>12 kV 17 kV</b></p> </div> <p>For 12 kV or 17 kV. Please contact our representative.</p>	 <p>Can be supplied with all common types of conductor connectors.</p>
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## TS-24HTJ TRANSITION JOINT

Up to 24 kV

### Application

For jointing three-core paper cables to three single core polymeric cables. This hybrid transition joint combines cold-shrinkable and heat-shrinkable technology. This transition joint is fully screened and submersible.

### Technical characteristics

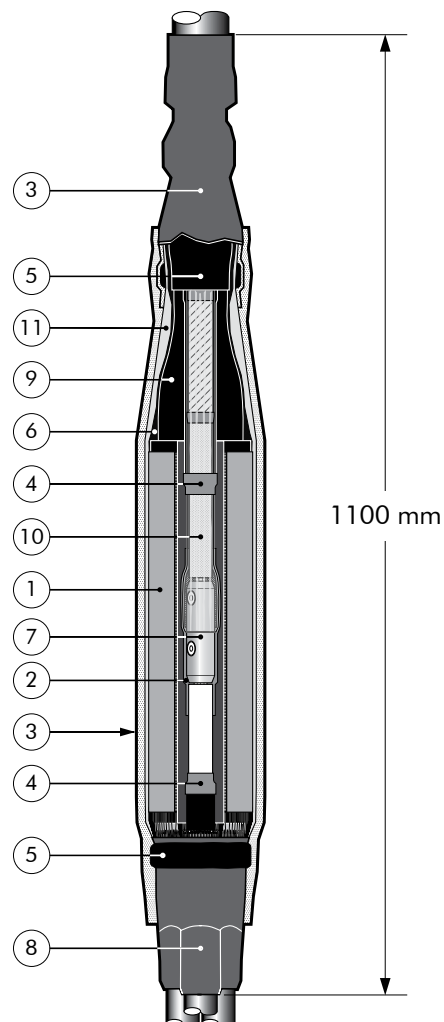
- For use with belted and Höchststädter cable (individual screened), both draining and non-draining.
- All different kinds of armouring and screen connection systems are possible.
- A compact design with enhanced water vapour resistance due to a moisture barrier sleeve.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Design

The joint comprises:

1. Extruded triple layer EPDM rubber body.
2. Two layer plate with a semi-conductive and a field control mastic layer.
3. Protective cover.
4. Field control mastic.
5. Water sealing system, including a barrier sleeve.
6. Copper stocking and mesh.
7. Conductor connector (not included in the standard kit).
8. Heat-shrinkable break-out.
9. Heat-shrinkable semi-conductive tubes.
10. Oil barrier tubes.
11. Trifurcating moisture barrier sleeve.



### Specifications and standards

This transition joint meets the requirements of CENELEC HD 629.2.

Cold-shrinkable transition joint type	Dry insulated cable data			Paper insulated cable data			Conductor sizes 24 kV (for information only) (mm <sup>2</sup> )	
	Type	Dia. over outer sheath (mm max)	Dia. over core insulation (mm min)	Type	Dia. over outer sheath (mm max)	Dia. over core insulation (mm min)	min	max
TS-24HTJ-1	1-core	46	18	3-core	65	15	35	185
TS-24HTJ-2	1-core	46	23	3-core	65	15	50	300

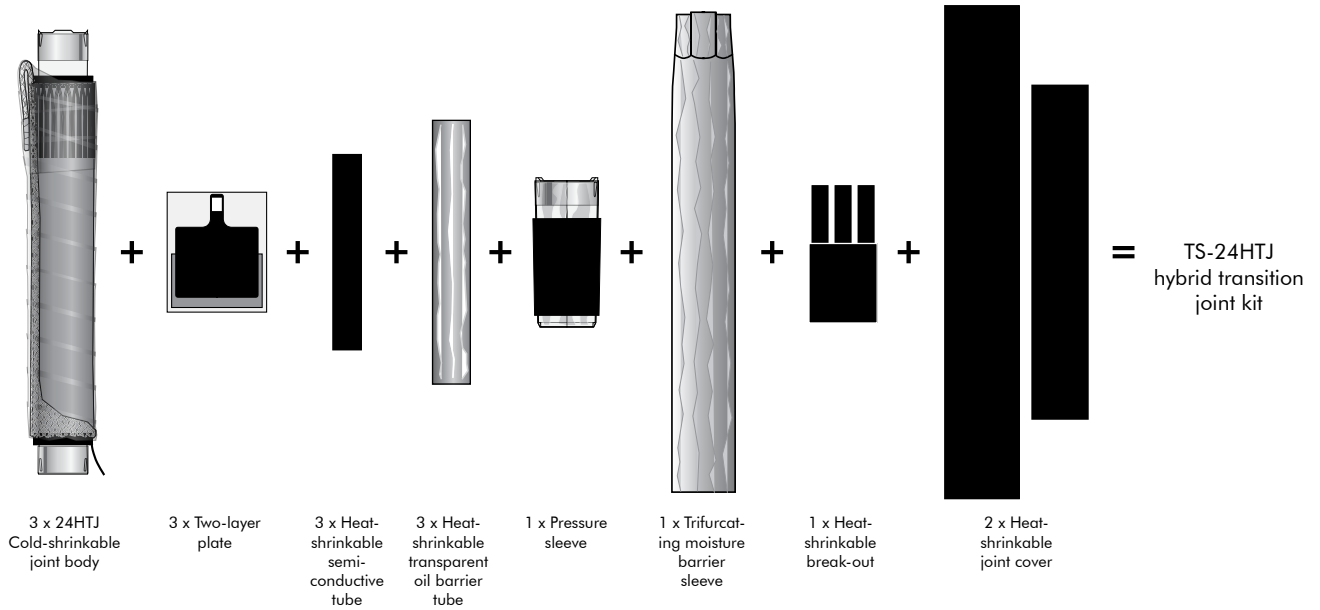
01/2012

## Kit contents

A typical complete transition joint kit comprises the following components:

The kit also comprises a pulling hook, roll springs, copper flexible braids, field control mastic, adhesive tape, water sealing mastic,

lubricant, wipers, gloves and installation instructions.



## Ordering instructions

Select the part number corresponding to the viscosity of the impregnated compound and verify the cable dimensions.

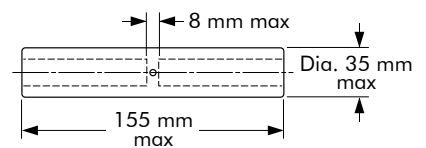
Please specify detailed cable information (type of screen and armour, if any - see Enquiry sheet p. 20).

Ordering part number	Conductor sizes (mm <sup>2</sup> ) (for paper insulated cables)									Dry insulated cable		Paper insulated cable (for information only)
	35	50	70	95	120	150	185	240	300	Dia. over outer sheath (mm)	Dia. over core insulation (mm)	Dia. over paper insulation (mm)
	TS-24HTJ-1											
TS-24HTJ-1	TS-24HTJ-1									46 max	18 min	15 min
TS-24HTJ-2	TS-24HTJ-2									46 max	23 min	15 min

### Example:

The three core individual screened, lead sheathed paper cable is 24 kV, 3 x 120 mm<sup>2</sup>, non-draining type and with armour. It must be jointed to three single core 24 kV, 120 mm<sup>2</sup> XLPE cables with

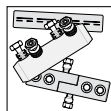
a copper wire screen (with a diameter over core insulation of 25.3 mm). Order a TS-24HTJ transition joint kit.



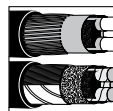
All types of conductor connectors can be used. The conductor connectors must be within the dimensions specified. An oil stop is mandatory for all types of conductor connectors.



For use with other cable types. Please contact our representative.



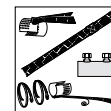
Can be supplied with all common types of conductor connectors



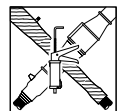
Different armour connections are available. Please contact our representative.



For use with individual lead sheathed cables: order -/3Pb



Different types of screen continuity kits can be supplied. Please contact our representative.



Resin injected and cast resin covers available. Please contact our representative.



## 24CSJ/STOP STOP JOINTS

### Application

For insulating and sealing live ends of polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

### Technical characteristics

All joint housings are tested for AC withstand prior to leaving the factory.

**Up to 24 kV**

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

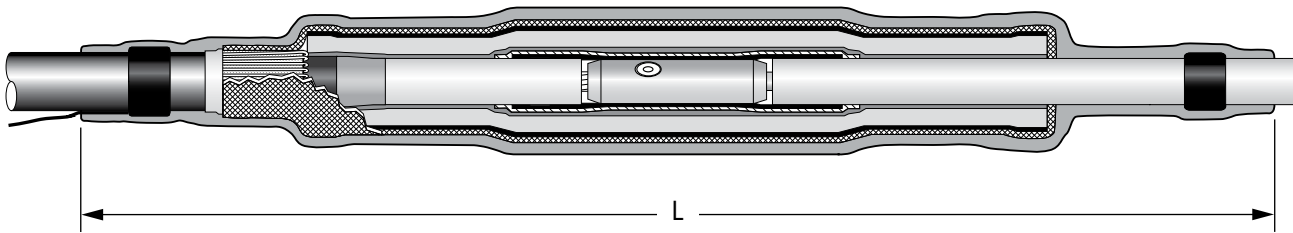
### Design

The design of this product is based on the 24CSJ straight joint.

The kit contains everything you need for the installation of one phase.

### Ordering instructions

Select the part number corresponding to the cable core insulation diameter.



Cold-shrinkable straight joint type	L (mm)	Voltage Um (kV)	Diameter over outer sheath (mm)	Diameter over core insulation (mm)	Conductor sizes for 24 kV (mm <sup>2</sup> ) (for information only)	
			max	min	min	max
24CSJ-1/STOP	750	24	46	18	35	185
24CSJ-2/STOP	750	24	46	23	95	300
24CSJ-3/STOP	850	24	57	30	240	630

01/2012

# ENq UIRY SHEET

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**Your company details:**

Company: .....

Address: .....

Tel.: .....

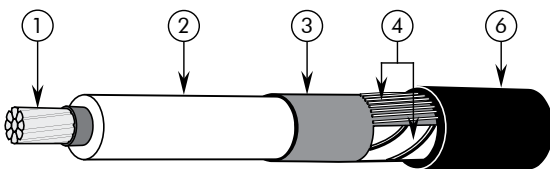
Fax: .....

E-Mail: .....

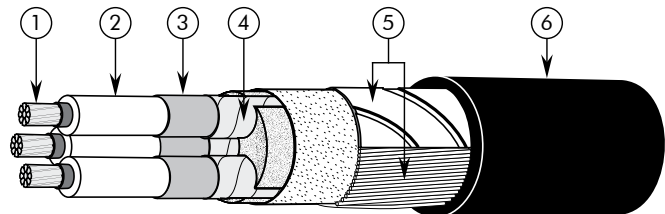
## Cable Data

- 1. Cable type:**  Single core  Three core
- 2. System voltage (kV):**  3.6/6 (7.2)  12/20 (24)  20.8/36 (42)  
 6/10 (12)  12.7/22 (24)  Other: ..... / ..... (.....)  
 6.35/11 (12)  18/30 (36)  
 8.7/15 (17.5)  19/33 (36)
- 3. System current (A):**  250  630  1250  
 400  800  Other: ..... A

Single core



Three core



## 4. Cable description:

- ① Conductor material:  Al  Cu  Stranded  Solid  Rond  Sector  
 Conductor cross section: ..... mm<sup>2</sup> (16 - 25 - 35 - 50 - 70 - 95 - 120 - 150 - 185 - 240 - 300 - 400 - 500 - 630 - 800 - 1000 mm<sup>2</sup>)
- ② Core insulation: - type:  XLPE  EPR  Paper  
 - diameter: ..... mm
- ③ Semi-conductive screen:- type:  Bonded  Easy strip  Fabric tape  
 - diameter (Optional): ..... mm
- ④ Metal screen type:  Al  Cu  Wire screen  Tape screen
- ⑤ Armour type:  No  SWA  STA  Other: .....
- ⑥ Outer sheath diameter: ..... mm

**Please fax to: +32 (0)53 850 291**

Please copy this page and use it for all enquiries to Nexans Network Solutions N.V. - Div. Euromold

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